

AMENDMENTS TO THE CLAIMS

1. (Cancelled)

Claims 2-36 (Canceled).

37. (Currently Amended) An electronic device for outputting a signal configured according to at least one disease control parameter value of a patient, comprising:

- (a) an electronic data ~~receiver recording device~~ configured for receiving a prior disease control parameter value $X(t_i)$;
- (b) a memory ~~for storing comprising one or more~~ optimal disease control parameter values $R(t_i)$ and $R(t_j)$, self-care values $S_M(t)$ of a patient, optimal self-care values $\Theta_M(t)$, and one or more scaling factors K_M ;
- (c) a microprocessor, in communication with said electronic data ~~receiver recording device~~ and said memory, ~~for calculating programmed to calculate~~ a further disease control parameter value for enabling corrective action to be performed to prevent hypoglycemia or hyperglycemia, said further value being based on said self-care values $S_M(t)$ and $\Theta_M(t)$, said disease control parameter values $X(t_i)$, $R(t_i)$ and $R(t_j)$, and said scaling factors K_M ; and
- (d) ~~an output port for outputting a signal configured a display configured to display information according to said further value, thereby enabling the patient to select appropriate self care actions said corrective action to be performed to prevent said hypoglycemia or hyperglycemia.~~

38. (Currently Amended) The device of claim 37, further comprising a housing, wherein said memory and said microprocessor are housed within said housing, and further comprising an output port, said output port is integral with said housing, thereby providing a to provide hand-held, readily transportable device.

39. (Currently Amended) The device of claim 38, wherein said electronic data recording device receiver is arranged within said housing.

40. - 50. (Canceled)

51. (Currently Amended) The apparatus device of claim 40 37, wherein said processor is programmed to calculate for determining a plurality of future blood glucose values representative of a corresponding plurality of expected blood glucose concentrations of the patient.

52. (Currently Amended) The apparatus device of claim 40 37, further comprising ~~a further an~~ output port coupled to said processor for establishing a communication link between said apparatus device and a healthcare provider computer and for transmitting and receiving data therebetween.

53. (Currently Amended) The apparatus device of claim 52, wherein said device further output port comprises a modem for establishing said communication link through a communication network.

54. (Currently Amended) The apparatus device of claim 52, wherein said ~~further~~ output port comprises ~~and an~~ input/output port for establishing said communication link through a connection cord.

55. - 61. (Canceled)

62. (Currently Amended) The system device of claim 55 51, wherein ~~said processor for determining a plurality of future blood glucose values representative of a corresponding plurality of~~

~~expected blood glucose concentrations of the patient, and wherein said display means includes means is configured~~ for displaying said future blood glucose values in graphical form.

63. - 66. (Canceled)

67. (New) The device of claim 37, wherein the electronic data recording device further comprises a measurement device for measuring the prior disease control parameter, and wherein the measured disease control parameter is stored in the memory.

68. (New) The device of claim 67, wherein the measuring device comprises a blood glucose meter.

69. (New) The device of claim 37, wherein:

the disease comprises diabetes;

the self care parameters comprise one or more of: insulin dosage, diet, and exercise;
and

the disease control parameter comprises blood glucose level.

70. (New) The device of claim 37, wherein:

the disease comprises asthma;

the self care parameters comprise one or more of: allergen exposure, exercise,
inhaled bronchial dilator dosage, and anti-inflammatory medication dosage; and
the disease control parameter comprises peak airflow rate.

71. (New) The device of claim 37, wherein:

the disease comprises obesity;

the self care parameters comprise one or more of: diet, exercise, and metabolism altering medication dosage; and
the disease control parameter comprises body weight.

72. (New) The device of claim 37, wherein:

the disease comprises hypertension;
the self care parameters comprise one or more of: diet, exercise, stress reduction, and blood pressure medication dosage; and
the disease control parameter comprises blood pressure.

73. (New) The device of claim 37, wherein:

the disease comprises coronary artery disease;
the self care parameters comprise one or more of: diet, exercise, stress reduction, lipid lowering medication dosage; and
the disease control parameter comprises cholesterol level.

74. (New) The device of claim 37, wherein:

the disease comprises panic disorder;
the self care parameters comprise one or more of: stress reduction, and anti-depressant medication dosage; and
the disease control parameter comprises number of panic attacks.

75. (New) The device of claim 37, wherein:

the disease comprises nicotine addiction;
the self care parameters comprise one or more of: number of cigarettes smoked, and coping behaviors; and

the disease control parameter comprises urges to smoke.

76. (New) The device of claim 37, further comprising a server, wherein the server comprises the microprocessor and the memory, and the server calculates the further disease control parameter value.

77. (New) The device of claim 76, wherein the server is a world-wide-web server, and the display comprises a world-wide-web television.

78. (New) The device of claim 37, wherein the programming comprises the following equation:

$$X(t_j) = R(t_j) + (X(t_i) - R(t_i)) + \sum_M K_M (S_M(t_i) - O_M(t_i))$$

wherein $X(t_j)$ is the further disease control parameter value at time j, $R(t_j)$ is the optimal disease control parameter value at time j, $X(t_i)$ the prior disease control parameter value at time i received by the electronic data recording device, $R(t_i)$ is the optimal disease control parameter value at time i, K_M is the scaling factor, $S_M(t_i)$ is the self-care value of the patient at time i, and $O_M(t_i)$ is the optimal self-care value at time i.

79. (New) The device of claim 37, wherein the one or more scaling factors comprises a weighting factor applied to differences between the patient self care values and the optimal self care values.